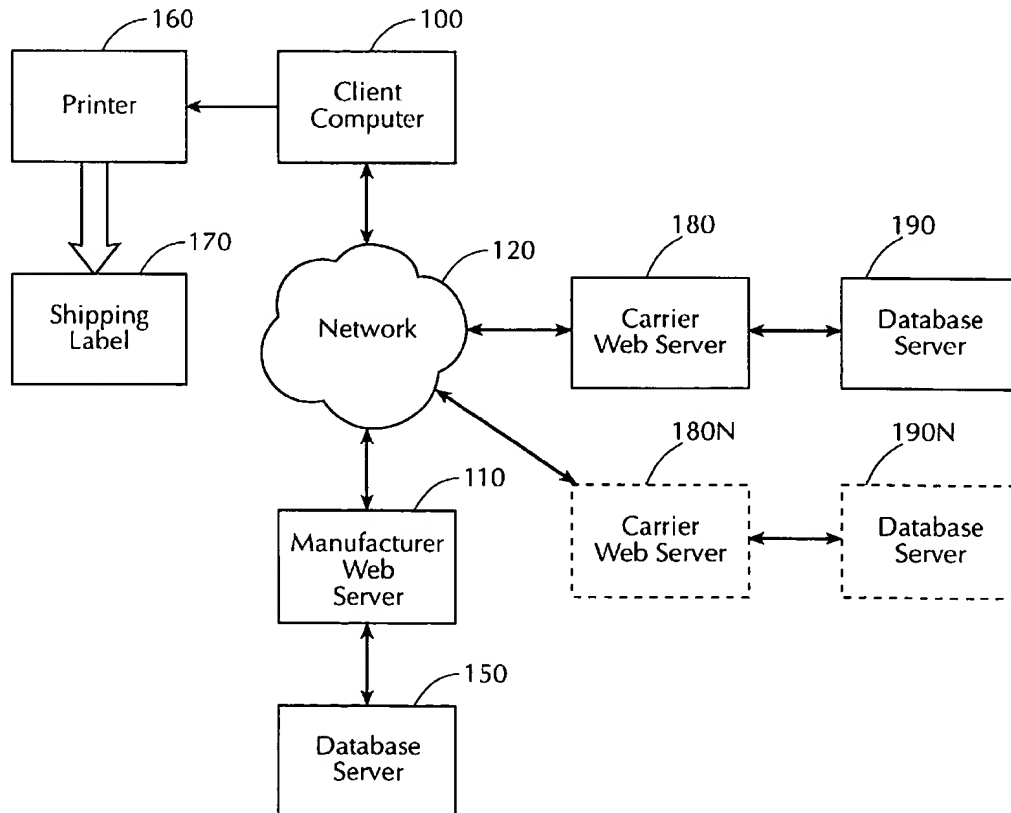(19) **United States**

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(54) **SYSTEM AND METHODS TO EFFECT RETURN OF A CONSUMER PRODUCT**

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(57) **ABSTRACT**

A network server is provided which effects the return of a consumer product. The network server is adapted to present to a client located on the network one or more form pages adapted to elicit consumer information including an identification of the consumer product to be returned and an identification of the present location of the consumer product. The server can receive the consumer information and transmit to the client shipping label data which includes an identification of a destination for the consumer product and of a carrier service. The destination is selected in accordance with the consumer information and without regard to where the consumer product was purchased.

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                  product

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Current US Classification, US Primary Class/Subclass - CCPR (1):
705/28

Summary of Invention Paragraph - BSTX (5):
[0005] There are many circumstances in which it is desirable to move a
product from a consumer back to a manufacturer, for a variety of reasons. In
the field of laser **toner cartridges,** for example, it is desirable to move a
spent cartridge from the consumer back to the manufacturer, so that the
manufacturer may dispose of the cartridge, such as by recovering or recycling
all or portions of it. Such a system allows the manufacturer to re-use some
portions of the cartridge in order to fabricate new cartridges, and to reduce
other portions to scrap materials, which may also be re-used. Disposing of a
cartridge in this manner allows a manufacturer to fabricate new cartridges more
cheaply, and also has very positive effects on the Environment.

Detail Description Paragraph - DETX (4):
[0033] "Consumer product" or sometimes simply "product" means any product
under the sun. In one preferred embodiment, the consumer product to be
returned is recyclable product, such as for example a recyclable laser printer
toner cartridge. However, the system and methods for effecting product returns
according to the invention can be adapted to the return of any consumer
product.

Detail Description Paragraph - DETX (29):
[0058] If the product type is valid, a destination is determined and
shipping label data is transmitted, as will be set forth below. In a preferred
embodiment of the present invention, the product identification information
includes not only information indicating the generic type of the product (e.g.
"laser **toner cartridge**"), but also an indication of the serial number of the
specific product. In such a case, the serial number, too, is subjected to a

validity check, by comparing it to serial numbers on a list of serial numbers maintained in the database server 150. In a preferred embodiment of the present invention, the Web server 110, after receiving product information from the client computer 100, will serve a Web page that provides a form for inputting information about the consumer's use of the product. Such use information might include such things as, for example, whether the consumer is using the product in a home or office setting; how much the consumer is using the product; how much the consumer paid for the product; where the consumer purchased or learned of the product; and myriad other data of interest to the manufacturer. This information, once received by the Web server, is stored in the database server 150. Such information allows the database server to maintain rich information not only with respect to a particular customer, but also with respect to the particular products that are returned.

Detail Description Paragraph - DETX (31):

[0060] Once product information has been entered and received by the Web server, the Web server selects a product return destination for the consumer product, and a carrier service that will handle the transport (S240). Generally, the Web server 110 will determine the destination of the product in accordance with the product type sending the product to a facility at which it may be processed. For example, in the case of a laser **toner cartridge** being returned for recycling, a destination will be chosen at which the recycling can be done. The destination may be further refined in accordance with the location of the consumer, selecting whatever suitable destination is closest to the consumer in order to minimize shipping costs. The database server maintains a list of all available destinations, their locations and their processing capabilities, and is accessed by the Web server 110 in determining the destination for a particular product.

Detail Description Paragraph - DETX (46):

[0075] An exemplary Web page served to a client when the return container hyperlink 1012 is illustrated in FIG. 10G. The page includes field 1018 for inputting the exact type of product to be returned; and field 1019 for inputting the quantity of product to be returned. In the case where the product is a consumable that is used in conjunction with a larger machine (such as, for example, a consumable laser **toner cartridge** that is used in conjunction with a laser printer), additional fields 1020 for inputting the machine (e.g., laser printer) model and field 1021 for inputting the specific machine serial number might also be provided. In any event, the information for fields 1018-1021 may be input by the consumer typing it in, or alternatively, and in many instances preferably, through the use of well-known pull-down type menus.

The Web page of FIG. 10G also includes a field 1022a for selecting shipping labels, and a field 1022b for selecting a multiple shipment box. In the figure, field 1022a is selected by default. Also included, of course, are button 1023 for submitting the input data to the server and button 1024 for resetting the form. In the case where a consumer requests a multiple shipment box (field 1022b), the client might be next served with a page along the lines of FIG. 10H, which advises that an unassembled box will be shipped, and requests that once the box is filled the consumer again visit the Web site to obtain a shipping label. Bulk returns of this type are typically more efficient, less expensive and more environmentally friendly than individuals product returns. In addition, delaying the provision of the shipping label in this manner makes the system even more dynamic, in that it allows the decisions as to where the product will be sent and the identity of the carrier, to be made as close to the actual shipping date as possible, allowing those decisions to be optimized. For example, suppose a manufacturer obtains the most favorable rates from Carrier X at the time a multiple shipment box is requested, and subsequently but prior to the filling of the box by the consumer, negotiates even more favorable rates from Carrier Y. The delaying of the provision of the shipping label would in that case allow the manufacturer to use Carrier Y, rather than Carrier X, thereby allowing the box to the shipped at the most favorable rate possible.

Detail Description Paragraph - DETX (79):
   [0108] This embodiment would have use, for example, in a situation in which a laser **toner cartridge** is manufactured by a first manufacturer, for use in a laser printer manufactured by a second manufacturer. In such a case, the embodiment would allow a purchaser of the printer to visit the Web site of the printer manufacturer, and obtain a shipping label for shipping the cartridge to a facility of the cartridge manufacturer, for disposition, such as for example for recovery and recycling.

Detail Description Paragraph - DETX (87):
   [0116] Section 1404 labeled "Product Data" contains a data record for each type of consumer product that the system may be used to return. Each such data
record A . . . N includes a product code, a product name, a product description, etc. The data record also preferably includes the dimensions of the product, such as its length, width, height and weight, which may be used to estimate or calculate the shipping fee. Also, if the product is a consumable used in conjunction with a larger machine, the data record might include an identification of the machine or machines with which the product may be used. For example, if the product is a laser **toner cartridge,** the data record might

include the model numbers in of the printers in which it may be used. At any rate, data records for those consumer products that the system may be used to return are created by, and may be updated by, authorized administrators.

Claims Text - CLTX (10):

9. The network server according to claim 7, wherein the consumer product is a laser printer **toner cartridge,** and wherein the client runs on a computer operably connected to a laser printer.

Claims Text - CLTX (19):

18. The method according to claim 16, wherein the consumer product is a laser printer **toner cartridge,** and wherein the client runs on a computer operably connected to a laser printer.

Claims Text - CLTX (28):

27. The computer code according to claim 25, wherein the consumer product is a laser printer **toner cartridge,** and wherein the client runs on a computer operably connected to a laser printer.

Claims Text - CLTX (37):

36. The apparatus according to claim 34, wherein the consumer product is a laser printer **toner cartridge,** and wherein the client runs on a computer operably connected to a laser printer.